

**Notice of Allowability**

Application No.

10/734,166

Examiner

Bobbak Safaipoor

Applicant(s)

OOUCHI, JUN

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/21/2006.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

*Notice of Allowability*

**Claims 1-8** are allowed.

The following is an examiner's statement of reasons for allowance:

Consider **claims 1-8**, the best prior art of record during the examination of the present application, **Oouchi (United States Patent #6,175,791 B1) (hereinafter Oouchi '791)** in view of **Oouchi (United States Patent #6,356,207 B1) (hereinafter Oouchi '207)** and further in view of **Imura et al (United States Patent #5,909,653)**, fails to specifically disclose, teach, or suggest, a mounting member for mounting said antenna array at a predetermined location of said motor vehicle; and antenna angle holding means mounted swingably on said mounting member for holding the angle of said antenna array relative to the horizontal plane of said motor vehicle within a predetermined range of angle, wherein said antenna angle holding means is designed to set said predetermined range of angle such that a proper angle can be ensured for enabling intercommunication between said on-road equipment and said antenna array within said predetermined communication area.

Oouchi '791 shows and discloses an on-vehicle DSRC apparatus including a main body of the on-vehicle DSRC apparatus to be mounted on a motor vehicle (col. 3, lines 4-7; A DSRC car-mounted equipment for executing a dedicated narrow-range communication with an on-the-road equipment), a signal processing unit provided in said main body of said on-vehicle DSRC apparatus (col. 3, lines 8-11; A communication control unit for demodulating the signals

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received from said on-the-road equipment and for forming signals to be transmitted to said on-the-road equipment), and an external storage medium insertion slot which is integrally formed in said main body of said on-vehicle DSRC apparatus and into which an external storage medium can removably be inserted (col. 3, lines 12-13; An IC card accommodation portion in which is removably accommodated an IC card that works as an external storage medium).

Oouchi '791 fails to teach and an antenna array electrically connected to said signal processing unit to perform intercommunication with on-road equipment, wherein said signal processing unit is designed to process signals received through said antenna array and send out a variety of signals to said on-road equipment through transaction of information with said external storage medium inserted in said external storage medium insertion slot.

However, Oouchi '207 discloses a car-mounted controller which includes various arithmetic processing means and a transmission/reception control unit, changes over the transmission/reception change-over switch, fetches reception data from the on-the-road equipment via the reception circuit, outputs the transmission data to the on-the-road equipment via the transmission circuit, and, as required, outputs required data for detecting abnormal condition to the transmission modulator. To the car-mounted controller are connected a display unit that works as information output means and an external storage medium such as IC cards (figure 1; col. 4, lines 50-60). It would have been obvious to one of ordinary skill in the art to incorporate the teachings of Oouchi '207 into the system of Oouchi '791 to inform the driver of the condition of the data transmission/reception function to and from the on-the-road-equipment.

Imura et al also disclose an antenna support mechanism that can be rotated such that the antenna moves away from the front surface, i.e. in the direction of the rear surface, the tip of the

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antenna describing an arc of  $\theta$  degrees from the vertical position (fig. 1; col. 3, lines 8-12).

When the rotation of the antenna reaches a prescribed angle sufficiently inclined with respect to the front surface of the case, the antenna support mechanism rigidly locks the antenna with respect to the case (fig. 1; col. 3, lines 13-16).

Imura only discloses a radio device that comprises an antenna that is supported on a case of the radio device but fails to teach a mounting member for mounting the antenna array at a predetermined location of the motor vehicle. Furthermore, although Imura discloses that the antenna support mechanism that can be rotated such that the antenna moves away from the front surface, Imura fails to disclose holding the angle of an antenna array relative to a horizontal plane of a motor vehicle within a predetermined range of angle wherein the antenna angle holding means is designed to set said predetermined range of angle such that a proper angle can be ensured for enabling intercommunication between the on-road equipment and the antenna array within said predetermined communication area.

Claims 2-8 are allowable because it is dependent upon claim 1.

These teachings clearly differ from the claimed invention, therefore, claims 1-8 of the present application are considered novel and nonobvious over the prior art and, consequently, are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

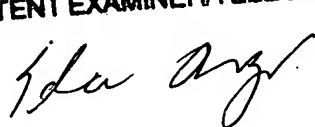
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

  
Bobbak Safaipour  
B.S./bs

January 5, 2007

EDAN ORGAD  
PATENT EXAMINER/TELECOMM.

 1/6/07